

Notice

Notice 0158

Title: Verification for LOTO

Issuing Authority: HSR-5

Endorsed by: Barbara Stine, PDAD,ADTS

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Issued by: Barbara Hargis, HSR-DO

Summary:

The procedures contained in this Notice provide clarification of institutional lockout/tagout requirements to ensure that the correct isolating devices are positively verified during lockout/tagout activities involving an already deenergized circuit.

Application:

These procedures apply to all personnel who are trained and authorized to perform lockout/tagouts where hazardous electrical energy is involved. Specifically additional expectations are stated for implementing Step 8 of the Laboratory's lockout/tagout procedure, as defined in LIR 402-860-01.1, Lockout/Tagout for Personal Safety.

Justification:

On November 5, 2004, an electrician narrowly escaped being exposed to hazardous electrical energy that could have caused severe injury or death. An investigation team, appointed by the Laboratory Director, determined that the potential exposure resulted from not positively verifying that the correct isolating device had been locked and tagged. The verification process, as defined in LIR 402-860-01.1, Lockout/Tagout for Personal Safety, does not address complications introduced into the verification process when an already de-energized circuit is locked and tagged. As a result, the investigation team recommended that LANL clarify institutional lockout/tagout requirements to specifically address positively verifying the correct isolating device(s) has been locked and tagged.

Instructions:

Step 8 of the Laboratory's lockout/tagout procedure, as defined in the Section 5.5 of LIR 402-860-01.1, states

“Verify the mechanical integrity of the energy isolation device and verify the deenergization of the EMS (equipment, machinery, or system) (zero-energy state). Perform required tests specific to the EMS, such as zero-voltage verification, to ensure that isolation has been achieved and that stored hazardous energy is relieved. A worker performing electrical verifications shall be a qualified energized electrical worker in accordance with LIR 402-600-01, “Electrical Safety” (Attachment D). Return all operating controls to the neutral or off position.”

In addition to the above requirements, the following procedures must be implemented:

- When performing lockout/tagout on an already deenergized circuit, positive identification of the circuit must be completed. If the raceway is exposed, the circuit must be visually traced and verified with a listed volt-ohm meter (VOM). If the raceway is not exposed and the circuit has been verified through the use of a VOM that voltage is not present at any of the normal test points, the circuit power source must be traced (using a listed circuit tracer or VOM) to ensure that the source being locked out is the correct energized source.

Section 6.3.1 (Guidance for Deenergized Electrical Work) of LIG 402-600-01, Electrical Safety Implementation Guide, provides additional guidance for verifying a deenergized condition.

Contact: Questions concerning the verification process for lockout/tagout should be directed to Grant Guymon (HSR-5, 667-5335).

This Notice will remain in effect until the expiration stated, or until one year from date of issuance, whichever occurs first.